

IN THE UNITED STATES DESIGNATED OFFICE (DO/US)

In re: DeSimone *et al.* Attn: DO/US
U.S. Appl. No.: 10/589,222
International Appl. No.: PCT/US2005/004421
International Filing Date: February 13, 2004
Title: DISCRETE SIZE AND SHAPE SPECIFIC ORGANIC NANOPARTICLES DESIGNED TO ELICIT AN IMMUNE RESPONSE

Mail Stop PCT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Sir:

The patents listed on the attached PTO-1449 were cited in the European Search Report and/or the specification of corresponding International Application No. PCT/US2005/004421. A copy of the Search Report is enclosed for the Examiner's convenience. In accordance with the Office waiver published July 11, 2003, copies of the cited U.S. patents and patent application publications are not enclosed. Applicants do enclose copies of any cited foreign patent documents and non-patent literature in accordance with 37 CFR 1.98(a)(2).

The Examiner may wish to consider the notations on the Search Report itself regarding the relevance of each item. It is requested that the Examiner consider these references and officially make them of record in accordance with the provisions of 37 C.F.R. § 1.97 and Section 609 of the MPEP. By submitting the listed documents, Applicants in no way make any admission as to the prior art status of the listed documents, but are instead submitting the listed documents for the sake of full disclosure.

Respectfully submitted,

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Reference P21484 DrB/her	Application No./Patent No. 05750627.1 - 2113 / 1737574 PCT/US2005004421
Applicant/Proprietor The University of North Carolina At Chapel Hill	

Communication

The European Patent Office herewith transmits as an enclosure the supplementary European search report under Article 153(7) EPC for the above-mentioned European patent application.

If applicable, copies of the documents cited in the European search report are attached.

- 3 additional set(s) of copies of the documents cited in the European search report is (are) enclosed as well.

Refund of the search fee

If applicable under Article 9 Rules relating to fees, a separate communication from the Receiving Section on the refund of the search fee will be sent later.





SUPPLEMENTARY
EUROPEAN SEARCH REPORT

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
E	US 2006/204699 A1 (MALTEZOS GEORGE [US] ET AL) 14 September 2006 (2006-09-14) * paragraphs [0033] - [0038] *	1,2	INV. C08F114/18 B01L3/00
P, A	J. ROLLAND ET AL: J. AM. CHEM. SOC., 3 March 2004 (2004-03-03), pages 2322-2323, XP002532490 * the whole document *	1,2	
TECHNICAL FIELDS SEARCHED (IPC)			
B01L B81C			

The supplementary search report has been based on the last set of claims valid and available at the start of the search.

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Place of search	Date of completion of the search	Examiner
Munich	17 June 2009	Tragoustis, Marios
CATEGORY OF CITED DOCUMENTS		
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technical background O : non-written disclosure P : intermediate document	T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

- Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):
- No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:
- The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



LACK OF UNITY OF INVENTION
SHEET B

Application Number

EP 05 75 0627

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-16

These claims relate to a microfluidic device comprising a PFPE material prepared from a PFPE precursor material specified in terms of its viscosity.

2. claims: 17-24

These claims are directed to a microfluidic device comprising a fluoroolefin based elastomer based on the combination of two specific monomers.

3. claims: 25-36

This group of claims concern a method for functionalizing the surface of a microscale device by forming a layer of a functionalized material selected from a PFPE precursor or a liquid fluoroolefin-based precursor.

4. claims: 37-92

These claims concern a method of forming a two layered device on a substrate. The two layers are selected from a specific group of PFPE, PDMS, PU precursors .

5. claims: 93-98

These claims concern a method of adhering a microdevice to a substrate by solidifying a liquid precursor material which encases the substrate and the device.

6. claims: 99-108

These claims define a method of forming a microstructure by disposing a layer of a PFPE precursor on a substrate and then placing a multidimensional structure on said treated PFPE layer.

7. claims: 109-115

Claims 109-115 relate to a method for forming a microstructure wherein a predetermined volume of a degradable or selectively soluble material is deposited on the patterned surface of a PFPE material.



LACK OF UNITY OF INVENTION
SHEET B

Application Number

EP 05 75 0627

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

8. claims: 116-130

These claims are directed to a method of flowing a material in a microchannel of a microfluidic device which device is made of a PFPE material, a fluoroolefin-based elastomer or combinations thereof .

9. claims: 131-152

These claims concern a method of mixing two materials in a microdevice which device is made of a layer of a PFPE material, a fluoroolefin-based elastomer or combinations thereof .

10. claims: 153-172

These claims are directed to a method of screening a sample for a characteristic by contacting the sample with a target material in a microdevice. The device is made of a layer of a PFPE material, a fluoroolefin-based elastomer or combinations thereof .

11. claims: 174-184

These claims concern a method of separating a material from a mixture flowing in a specific region of a microdevice

12. claims: 185-197

These claims concern a method of dispensing a material through the outlet aperture of a microchannel of a microdevice. The microdevice is made of a layer of a PFPE material, a fluoroolefin-based elastomer or combinations thereof .

Apparently the above groups of claims concern different subject-matters which are defined by means of different combinations of features so that there is no single general inventive concept linking them together.

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 05 75 0627

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

17-06-2009

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2006204699 A1	14-09-2006 US	2007012891 A1	18-01-2007

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